

## BIROn - Birkbeck Institutional Research Online

West, D. and Christodoulides, George and Bonhomme, J. (2018) How do heuristics influence creative decisions at advertising agencies? Factors that affect managerial decision making when choosing ideas to show the client. *Journal of Advertising Research* 58 (2), pp. 189-201. ISSN 0021-8499.

Downloaded from: <https://eprints.bbk.ac.uk/id/eprint/16709/>

*Usage Guidelines:*

Please refer to usage guidelines at <https://eprints.bbk.ac.uk/policies.html>  
contact [lib-eprints@bbk.ac.uk](mailto:lib-eprints@bbk.ac.uk).

or alternatively

# **CHOOSING THE BEST CREATIVE AMONGST COMPETING IDEAS TO SHOW THE CLIENT: HOW DO AGENCIES DO IT?**

## **ABSTRACT**

The place of creativity in advertising has long been recognized, however, it remains unclear what creatives actually do and why they do it when it comes to making creative choices between what ideas to show the client. This study focuses upon individual choices made on what ideas to show clients in the absence of copytesting; it examines the decision-making heuristics employed by a global advertising agency. Based on an online survey, the results *inter alia* suggest that when it comes to deciding which ideas to show to clients, both analytic and pure heuristics are used in various combinations. The results provide insights about the nature of, and factors that influence, decision-making amongst managers with this first field study of managing choices of creative work at an advertising agency.

## **INTRODUCTION**

Place yourself in the role of a Creative Director in an advertising agency. You are reviewing the first round creative ideas for one of your biggest accounts with a senior creative team assigned to the brief. The entire internal team is there, including the account planner who wrote the brief, project manager who is eager to get moving on production and account director who is thinking about if the ideas will track with the client. You can clearly see that the creative team can hardly contain their excitement as they share their ideas and possible executions. After an hour of animated discussion, you disperse, reflecting on their proposed concepts. Guess what? The same team comes charging in the next morning with a number of new and supposedly even better ideas! They talk you through their latest creative routes. You end up late for your next meeting, your head now swirling with possible creative territories. The difficulty is, with so many different creative routes now on the table, which do you choose to show the client? Are any of the ideas any good? Will they achieve the desired creative impact? Do they make sense for the brand? As always, feedback to the team needs to be quick, giving them clear directives for

improvement, including thoughts on which ideas to keep and which to lose. And when it comes to presentation time, you will need to go back to the client with a strong recommendation of which ideas you believe will make for the best work. As the Creative Director, you understand that the agency and your own reputation depend upon this decisiveness to push the boundaries of what makes for one-of-a-kind advertising ideas. What is more, you know that some of the best ideas in advertising history were far from ‘landing the plane’ in the first round. Advertising is of course not unique in its subjectivity. Executives in other creative industries such as publishing, startups, film, music and gaming face similar challenges in decision-making when it comes to new ideas. How can you tell if any idea is a good one, given there is no sure answer?

It is quite clear that choosing between competing ideas will rarely be based upon a rational, or what might be termed ‘algorithmic’ solution. Advertising campaigns that challenge thinking, and see the world in a different way, are unlikely to be received well, but can gain enormous traction over time when people begin to understand and like the work. Take the Budweiser ‘Whassup?’ campaign. Developed by copywriters Charles Stone III and Vinny Warren for Group Creative Director Don Pogany at DDB Chicago, the campaign was initially spurned by distributors who thought it was too urban for such a classic brand. Budweiser took the risk on DDB’s concept and it paid off handsomely; but it was an undoubted gamble. The point is there is no algorithm for creatives to look up. There is no formula to work out. It is an unknown step into the dark each time. Even a campaign that is derivative takes a gamble because the basic premise of the idea may have worn out.

As such, the pejorative type of decisions in choosing between competing creative work will much more likely be in the realms of heuristics, i.e. rule of thumb (Gigerenzer, 2008).

Heuristics work when making decisions such as choices between creative work, partly because they are easy to use and partly because they provide customizable solutions to problems that can be adapted to many situations. Contrary to conventional wisdom, heuristic decision-making has often been found to outperform computer models (see for example Brighton, 2006 and Czerlinski, Gigerenzer and Goldstein, 1999), especially in situations where optimization is often difficult or impossible. And when applied to creative choices, heuristics may offer considerable insight into advertising agency's organizational processes.

In the case of choosing the best creative work, the ideal optimization technique would be to specify (or estimate) a profit-advertising response function and choose the creative idea that made the highest marginal profit return. Of course, specifying response functions with this level of precision would not only be impossible in practice, but also in theory (Taylor, Kennedy and Sharp, 2009). An Account Director or Creative Director cannot simply 'punch' numbers into a spreadsheet and find out what creative work to pick. Given that no mind or machine has yet to solve the dilemma, heuristics begin to make sense. Another reason for using heuristics is that they mitigate against the problem of overfitting. Studies indicate often relevant information is merged with the irrelevant, which produces an overfit relative to a more robust, simplified model (Cosmides and Tooby, 1992). Heuristics thinking is based upon ordered cues that offer a means to reduce overfit by removing or minimizing noise in any decision (Hertwig and Todd, 2003). Heuristics enable decision-makers to 'forget' data and focus only on the pertinent issues. And with a seemingly endless number of things to measure in the era of 'big data', this kind of convergent thinking can make for actionable and time sensitive decisions.

Drawing on the paucity of research on the selection of competing creative work within an advertising agency, the present study seeks to shed light into this process by investigating the

heuristics employed by advertising executives in the assessment of creative projects. What agency folks do and why they do it when choosing between competing creative ideas is shrouded in mystery. The focus here is on how agency executives make choices over what creative work to present and defend to clients. While there has been considerable research on the nature of creativity, how best to nurture and develop it and its influence on the fortunes of clients, their agencies and their team (as will be discussed below), the literature is bereft of studies examining how such work is selected from a volume of initial ideas. To what extent is the decision eclectic or codified? Do agency executives apply set rules or take each case as it comes? The results provide insights about the nature of and factors that influence decision-making amongst managers when choosing between creative ideas; decisions that are pivotal to the retention of clients and the longevity of client relationships.

## **CREATIVITY AND CREATIVE CHOICES**

Advertising creativity has been variously described in terms of thinking, ability, problem solving, imagination, innovation, and effectiveness (e.g. Bell, 1992; Koslow, Sasser, and Riordan, 2003). Advertising practitioners encounter various viewpoints about their work that in turn impacts their views of what constitutes advertising creativity (Crain, 2010; Kelley, 1992; Smith and Yang, 2004). Career advancement in advertising requires that practitioners assimilate cultural codes of professionalism that eventually become instinctive and habitual (Jenkins, 2002). Much of this has to do with the correct use of the conventions and norms of the industry rather than any rigid adherence to any creative concept or approaches. An advertising creative needs to appear to be both an artistic and concurrently realistic, market oriented and commercially driven (Dahlén, Rosengren, and Törn, 2008; Lehnert, Till and Ospina, 2014).

Thus, the agency creative “is not a free-floating artist but...is one who works hard [to synthesize and apply] analysis and knowledge” to develop new and novel creative outcomes (Alvesson, 1994, p. 547).

The perceptions of what constitutes advertising creativity have been found to differ by role (Hirschman, 1989; Runco and Charles, 1993; White and Smith, 2001). Thus creative talent, or creatives, have a tendency to view advertisements as more appropriate if they are artistic, while account executives and account planners are more inclined to view advertisements as more appropriate if they are strategic (Koslow, Sasser, and Riordan, 2003; Koslow, Sasser, and Riordan, 2006). With the increasing concentration of media planning and buying into large media agencies that provide specialist expertise and economies of scale, the role of creativity has become the core function of most advertising agencies (Dahlén, Rosengren and Törn, 2008; Nyilasy and Reid, 2009). Indeed, the place of creativity in advertising has long been recognized (Lehnert, Till, and Ospina, 2014; West, Caruana and Leelapanyalert, 2013) and the occurrence of eureka moments well documented (Michell, 1984; Baas, De Dreu and Nijstad, 2008; Stewart, Cheng and Wan, 2008). Nevertheless, for the most part, creatives are tasked with conjuring up a large volume of ideas for bringing to life the Creative Brief. The full volume of these ideas are rarely presented directly to clients in their entirety. There is no set process, but typically a copywriter/art director team may develop 50 rough ideas that they then self-filter down to about ten to review with the Creative Director on first review (depends on the Creative Director concerned). The Creative Director will generally make a call on three or four to develop (or of course may ask them to start again). Once the Creative Director has a level of confidence in the ideas based upon the Creative Brief, the Account Management and Planning people working on the project will be asked for their input. After several rounds of internal review the client may be

presented with say three directions. Overall the cross-functional internal agency team vets the work and decides upon the best ideas to take back to client. Aside from motivating and managing their creative teams, advertising executives have to make the final ‘call’ as to a selective pool of client-worthy campaign ideas, often with a strong recommendation for a favorite concept. Most experienced International Creative Directors acknowledge that the Creative Brief is the most important part of the puzzle and they are trained to refer 'back to the brief' when doing an initial screen of the creative work. If that work is 'on' or 'off' Brief then it is the first key decision a Creative Director has to make. Agency executives can make their reputations on the basis of selecting the work that best fits the clients’ brief otherwise the relationship will flounder and the account may eventually be lost.

## **DECISION-MAKING**

The question over how creative work is selected amongst competing ideas is essentially a sub-set of the realm of logic, intuition and heuristics – central concepts underlying decision-making and problem solving. Logic has an emphasis on mental models and the use of cognition to solve problems and preserve the ‘truth’ to well-structured problems. Such a perspective on decision-making has more to do with ‘risk and probability’ than ‘uncertainty’ because logic uses information while prone to error, necessitate risk about the future; (Brooke, 2010; Knight, 1923). By contrast heuristics come into their own when the problem is ill-defined and difficult to quantify and when time is often limited and the probabilities unclear (West, Ford and Farris, 2014). According to Gigerenzer (2008), “...the mind resembles an adaptive toolbox with various heuristics tailored for specific classes of problems—much like the hammers and screwdrivers in a handy-man’s toolbox” (p.20). Broadly the literature has identified ten types of heuristic as reported by investigators in specific tests and experiments (listed here alphabetically):

1. *Default* is the most basic one is when a choice is made that is most similar to what would normally be chosen (Johnson & Raab, 2003). So for example a campaign idea would be chosen that closely resembles what the agency would usually offer a client.
2. *Equality* (Gigerenzer & Gaissmaier, 2011) might be termed a ‘non-choice’. Here a Creative Director will attempt to integrate all the ideas across all completing choices rather than making any single decision (1/n). The advantage is a mix of ideas are blended, but the danger is that the unity of a single idea might be lost.
3. *Experience* involves a more social process whereby the choice is made by whoever is agreed to be the most experienced person (Boyd & Richerson, 2004). As such a Creative Director might favor the campaign idea of a well-respected creative team over a more junior one whatever the work.
4. *Fluency* is making a choice based upon what is recognized quickest (Schooler & Hertwig, 2005). Thus a creative director would go with the campaign idea that was most speedily appreciated.
5. *Imitate the majority* is another social heuristic where by the decision is based upon what most people want (Boyd & Richerson, 2004). In this case a Creative Director might opt for the idea that the most people in the agency think is best regardless of the idea itself.
6. *Instinct*: may often be seen as a separate aspect of decision-making to heuristics (Wierenga, 2011). Such decision-making relates to an internal and innate compulsive action. For example, a campaign idea simply strikes an executive that it is ‘right’ or ‘wrong’ with an innate gut feeling.



7. *Recognition* is where a choice is made based upon a previous encounter or knowledge (Goldstein & Gigerenzer, 2002), for example a campaign idea that is closely linked to a previous idea.
8. *Satisficing* involves making a decision based upon the first choice that exceeds set objectives. Thus a Creative Director would choose the campaign idea that first meets the brief and all the rest would be ignored in order to save time and effort (Simon, 1955; Todd and Miller, 1999).
9. *Take-the-best* can be grouped and closely linked with ‘recognition’ where a choice is made based on what is best (Gigerenzer & Goldstein, 1996). Thus, a creative director would choose an idea that strikes him or her as the best solution to the brief.
10. *Tallying* is a more demanding process (Dawes, 1979). A Creative Director would evaluate each option and allocate a number of favorable points apiece. In a final comparison the creative idea with the highest score would be chosen.

It might well be that many decisions and industries (such as the creative industries) have little choice other than to make decisions by heuristics. But is it a good thing? How well do heuristics stack up against algorithmic and more analytical decision-making? There is a large body of empirical work in the cognitive sciences focusing just on this question. Decision-making studies have compared *managers* to *students* and to the *statistical modeling* and *commercial databases*. There have been lots of studies comparing managers to students, with a number of studies suggesting that managers outperform such ‘proxy’ novices. For example, managers compared to students have been found to make decisions more quickly (Day & Lord, 1992; Fredrickson, 1985; Isenberg, 1986), be unaffected by context (Fredrickson, 1985) and need less

information (Isenberg, 1986). When it comes to statistical modeling, managers have been found to more correctly forecast the likelihood of an invention reaching the market (Åstebro & Elhedhli, 2006); and compared with commercial databases managers have been found to be only slightly under par in identifying potential high value lifetime customers (Wübben & Wangenheim, 2008). Though managers have not had it all their own way: marketing managers were found to be no better than students in predicting the opinions of consumers (Hoch, 1988) and in another, they were found to be no better at predicting the outcome of hypotheses published in the Journal of Consumer Research based upon academic research findings (Armstrong, 1991). (Please see Table 1 for a summary of the literature).

Overall, researchers have noted that the great advantage of heuristics is that they are fast (Gigerenzer & Goldstein, 1996; Kahneman, 2003). Furthermore, heuristics often lead to immensely satisfying and sometimes quite emotional outcomes. The defining nature of a decision based upon heuristics is that it frequently involves affect and is often accompanied by excitement and harmony (Hayashi, 2001). Going through and crunching the numbers can be satisfying too, but such an approach rarely leads to any sense of euphoria. In light of the discussion above, three central research questions will be posed in this exploratory study:

**RQ1:** What techniques are employed by agency teams in choosing campaign ideas to show their clients?

**RQ2:** How are choices made between competing ideas?

**RQ3:** In what way are the apparent pre-eminent solutions to the client's brief selected?

**Table 1. Selected Empirical Research on Heuristics and Decision-Making Performance**

Study and Context	Research Goal	Main Findings
Survey of 93 MBA students and 185 marketing managers in US (Hoch, 1988)	Ability of experts to predict the opinions of consumers compared to novices with neither group having access to data.	Experts were no better than novices at using their intuition. Wrong decisions involving intuition cannot be subject to feedback.
Survey of 16 academics, 12 practitioners and 43 high school students in US (Armstrong, 1991)	Differences between predictions of experts and novices	No significant differences between any group
2 experiments with 114 and 59 MBA students in US (Cripps & Meyer, 1994)	Investigation of how consumers plan for the replacement of durable goods compared to optimal machine replacement theory.	Subjects made persistently suboptimal decisions based upon a conservative heuristic favoring obsolescence motivated replacement of durables than deterioration against better performing alternatives.
2 experiments with 220 students and volunteers in Germany (Bröder, 2003)	Is the use of heuristics in decision-making adaptive and does information acquisition correspond to decision strategies?	Choosing the appropriate heuristic requires a meta heuristic that integrates and evaluates cues from the environment that convey information about its payoff structure. For example, saving costs in the long run were traded off against not always choosing the best option.
3 experiments with 52 students and faculty in UK (Newell & Shanks, 2003)	Assessment of the parameters of the 'take-the-best' (TTB) heuristic by offering more the purchase of more information before finalizing choice.	Complex decisions processes can be performed in simple ways. While TTB is powerful, it is not the universal decision making tool.
Survey of 561 projects containing 499 failures & 62 commercial successes 1989-1994 including 1143 entrepreneurs in Canada (Åstebro & Elhedhli, 2006)	Understanding why Canadian Invention Assistance Program (IAP) analysts correctly forecast likelihood an invention would reach the market as often or more often than linear additive statistical models	Analysts use simple sums of counts using significantly more cues than typically observed. The conjunctive model predicts 86%. However, experts correctly predict 83%, significantly outperforming a log-linear additive statistical model (79%).
3 experiments with 497 students in US (Saini & Monga, 2008)	Investigation of whether consumer decision-making is more heuristic when it comes to spending time rather than money.	Time and money may be seen the same by economists but in practice consumers are more likely to use heuristics to reduce time whereas they are more likely to use algorithms when it comes to spending money.
Analysis of 3 datasets including information on 2,330 apparel, 2,891 airline & 2,357 CD customers in the US (Wübben & Wangenheim, 2008)	Comparison of the outcomes of stochastic models versus the heuristics used by firms to predict future purchases.	Complex methods are only slightly superior to heuristics in terms of determining the (in)activity of customers and there is no clear evidence such models are superior to heuristics.
3 experiments with 530 undergraduates in US (Hutchinson, Alba, & Eisenstein, 2010)	Differences between optimal marketing budget allocations and those predicted by heuristics	Data-based inferences are subject to strong, heuristic-based biases that are not reduced by graphical presentations of the data, 'real world' experience, or explicit training

## METHODOLOGY

A single case study with embedded multiple units of analysis research design (Yin, 1983) is used for two main reasons: Primarily, the focus of this research was the decision-making of advertising executives in selecting creative work and this could not be considered without context. It was in this setting that the decision-making heuristics were developed and applied. It would have, therefore, been impossible to have a true picture of advertising executives' decision-making without employing such a context. Furthermore, access to decision-makers within organizations was key to the study. Given that advertising executives are busy professionals, establishing access to an organization enabled reaching the target sample and enhanced the participation within study. Guided by Maylor and Blackmon (2005), 'warm contacts' were employed in the selection of the agency, which is not only one of the leading advertising agencies worldwide, but is also a frequent recipient of industry creativity awards.

### *Measures*

A web questionnaire was developed in liaison with five senior managers at this leading global advertising agency in London. All study scales were utilized and validated in prior research, but since some were created in a non-advertising setting, those particular items were assessed for appropriateness in an advertising context. The five executives scrutinized the questionnaire, and several additional refinements were implemented to enhance response over three versions. The questions probed the demographics of the potential respondent and their agency office within the network, the intensity of competition in their market, the nature of the creative project most recently worked upon, the decision tools used to pick the one creative solution to share with the client, their confidence in the choice of project and the characteristics of the project, and in

particular how creative they regarded the chosen project to be and who was involved (by job function) in the development of the creative work. Respondents were prompted to think about a recent project they had worked on and to explain how they picked the one creative solution that they then presented back to the client. In order to distinguish between decision-making tools ten from the extant literature were selected with the addition of three new ones. ‘Algorithmic’ was added to provide the alternative to using heuristics. Then two additional heuristics to take account of the decision-making circumstance of an advertising agency, as advised by the agency executives. The first was ‘defer’. Here the choice of the creative idea is based upon knowledge of the expectations of the client. When using defer, an executive would be placing themselves in the shoes of the client and the client’s problem and seeing how well the creative idea fit. Secondly, ‘hierarchy’ was added. Hierarchy recognizes the influence of senior executives at the agency and their prerogative to override other choices. Responses were measured on 7-point Likert scales. Table 2 summarizes the heuristics included in the survey.

**TABLE 2: HEURISTIC TYPES**

<b>ALGORITHMIC</b>	The creative work that proved best based upon analyzing the data
<b>DEFAULT</b>	The creative work most similar to what we normally choose to do
<b>DEFER</b>	The creative work that we thought the client wanted
<b>EQUALITY</b>	We didn’t make one choice; we integrated creative works equally from all competing campaigns
<b>EXPERIENCE</b>	The creative work that the most experienced person in our team wanted
<b>FLUENCY</b>	The creative work we recognized quickest
<b>HIERARCHY</b>	The creative work that senior agency managers wanted
<b>INSTINCT</b>	We followed our instincts
<b>MAJORITY</b>	The creative work most people wanted
<b>RECOGNITION</b>	The creative work we most easily recognized
<b>SATISFICING</b>	The first creative work that exceeded our objectives
<b>TAKE-THE-BEST</b>	The creative work we thought would be best for the client
<b>TALLYING</b>	The creative work with the highest number of favorable aspects to it

### *Pre-Test*

The instrument was pre-tested to ensure that all questions were appropriate and clearly understood. The online questionnaire was pre-tested, using a convenience sample of the same five advertising executives at the global agency who had guided the work to assure appropriateness of the various constructs and related scales. At this point the questionnaire was deemed to be ready for mailing out to the sample population. (Please note: From the list of options, while it clearly had to be included, there was be a natural bias for a professional to choose: "Take-the-best: The creative work we thought would be best for the client or sponsor").

### *Survey*

The questionnaire consisted of 24 questions. It began with the requisite instructions and statements of confidentiality. Respondents were asked to codify their chosen project as: (1) primarily using traditional media, (2) primarily using new media or (3) roughly an equal combination of traditional and new. They were then asked: "Looking at the project identified, more than likely you had to consider a number of alternative creative solutions for the execution. How did you pick the one creative solution to pitch to the client?" They were then presented with the 13 decision tools presented above without the typology definition (e.g. they were offered the first one that exceeded our objectives" without being provided with the definition of 'satisficing'). Respondents were able to choose more than one tool and used a seven-point scale to indicate the degree to which they employed (or not) each heuristic.

### *Sample*

Senior managers at the London office of the agency sent an explanatory email out with a URL link the Qualtrics-hosted survey with an explanation inviting responses via to the European,

North American and Asian offices of the agency and the senior managers receiving in turn sent out links encouraging their staff to participate. For example, the Head of Creative in London sent the link to the Head of Creative in New York who then forwarded it to all their staff in the New York office. Thus, the sample consisted of executives working on a range of accounts from a cross national section of the agency. Recipients were directed to pass on the questionnaire link to the most senior marketing person in the company, if not them.

### *Response*

The database was administered via Qualtrics.com and 144 responses were obtained from executives working across account management, creativity, media and research. Inevitably, given many of the recipients were involved in generating creative ideas rather than making the final choice as to which one to share with the client, the number of workable questions was 69. The internal nature of the sampling and lack of direct control by researchers meant it was not possible to send out a second wave of the questionnaire and many of the standard tests of potential for non-response bias were not applicable. However, Armstrong and Overton's (1977) method, where the first 25% of the responses are compared to the last 25% of the responses, was also utilized. No significant differences were found on the responses of early versus late respondents. The primary demographics of the sample who influenced the selection of ideas were Account Planners 29%, Account Directors (21%) and Digital Specialists (21%) with Creative Directors, Art Directors and Copywriters the next largest group (9%). Other roles included (senior) producer, creative technologist, digital strategist, strategic planner, and digital planner. The respondents worked in advertising for an average of 8.6 years ( $SD = 6.9$  years), 3.1 of which at the present agency ( $SD=3.6$ ). The demographic characteristics of the sample can be seen in Table 3.

**TABLE 3: DEMOGRAPHIC CHARACTERISTICS OF THE SAMPLE**

<b>Demographic</b>	<b>N (%)</b>
<b>Age of Office (n=95)</b>	
Mean	106
Median	136
Mode	150
<b>Staff</b>	
<b>Number of Years at Agency (n=88)</b>	
Mean	3
Median	2
Mode	1
<b>Age (n=90)</b>	
25-34	45 (50)
35-44	26 (29)
18-24	10 (11)
45-54	7 (8)
55-64	2 (2)
<b>Gender (n=89)</b>	
Female	43 (48)
Male	46 (52)
<b>Job (n=112)</b>	
Account Planner/Researcher	21 (18.8)
Account Director	12 (10.7)
Digital Account Director	11 (9.8)
Digital Media	11 (9.8)
Digital Account Planner/Researcher	11 (9.8)
Community Manager	6 (5.4)
Creative Director	5 (4.5)
Copywriter/Art Director	3 (2.7)
SEO Specialist	3 (2.7)
Designer/Specialist	3 (2.7)
Digital Copywriter/Art Director	2 (1.8)
Digital Creative Director	1 (0.9)
Media	0 (0.0)
Other	23 (20.5)

Self-reporting has several advantages and was chosen over observation to enable participants to select phenomena closest to their own experiences. Though it must be noted that any self-report method has the potential for bias, and, in particular, the potential for social-desirability bias (Phillips and Clancy, 1972). Social-desirability bias has been associated with a wide range of topics that are commonly measured in surveys involving objective and subjective singularities, such as height and weight, the payment of taxes, beliefs in God, or voting intentions (Gittleman,



2015). Here, for example, reporting that you had chosen the ‘one recognized quickest’ might seem unprofessional. However, such bias has mainly been found present when respondents are asked about potentially embarrassing attributes in the physical presence of an interviewer or over the phone; the evidence is clear that social-desirability bias does not greatly affect self-administered surveys via mail or Internet, given the interviewer is absent, especially when full anonymity is assured (and for a recent discussion of the phenomena see: Crutzen and Goritz, 2010; Holbrook and Krosnick, 2010). Respondents were assured at the start of the survey that they could withdraw from the study at any point, that their data would be kept confidential and that their data would be used solely by the researchers for academic purposes. Furthermore, as an additional check on potential bias, at the end of the survey respondents were asked to rate on a seven-point scale whether they ‘strongly disagreed’ (1) to ‘strongly agreed’ (7) with the following two statements: “I tried to answer this questionnaire to the best of my ability” ( $m = 6.3$ ) and “I had great difficulty understanding most of the questions” ( $m = 2.1$ ). One person who scored 1 for the former question was removed from the sample (no-one answered 2) and no one answered below 5 for the latter.

## RESULTS

The top two heuristics (take-the-best and tallying) were at the analytical end of the decision-making spectrum, and that all four analytic approaches (including satisficing and algorithmic) were in the top half (see Table 4). Instinct was the top ‘pure’ heuristic coming third in the ranking with majority at fourth. All the other pure heuristics from experience to fluency were in the bottom half. The question asked: *Looking at the project identified [for the survey], more than likely you had to consider a number of alternative creative solutions for the execution. How did you pick the one creative solution to pitch to the client? Please review the statements below and*

award stars to all options (1 star 'strongly disagree' to 7 stars 'strongly agree')". As such, respondents were asked to reflect on their most recent decision on creative choices, a decision known by researchers to involve a complex mix of parameters. A scale rather than a simple 'yes' or 'no', enabled the degree of power between each heuristic to be illuminated.

**TABLE 4: DECISION-MAKING TECHNIQUES AND CONFIDENCE**

	<b>Agreement</b>	
	<b>Scored 1 – 7</b>	
<b>[n=69]</b>	<b>Mean</b>	<b>SD</b>
<b>Take-the-best:</b> The creative work we thought would be best for the client or sponsor	5.75	1.34
<b>Tallying:</b> The creative work with the highest number of favorable points about it	4.70	1.87
<b>Instinct:</b> We followed our instincts	4.57	1.82
<b>Satisficing:</b> The first creative work that exceeded our objectives and then we ignored the rest	4.02	2.03
<b>Majority:</b> The creative work most people wanted	3.93	1.84
<b>Algorithmic:</b> The creative work that proved best based upon analyzing the data	3.87	1.97
<b>Defer:</b> The creative work the client wanted	3.91	1.76
<b>Experience:</b> The creative work that the most experienced person in our team wanted	3.36	1.85
<b>Hierarchy:</b> We chose the creative work that senior managers wanted	2.95	1.77
<b>Recognition:</b> The creative work we most recognized	2.86	1.70
<b>Default:</b> The creative work most similar to what we normally choose to do	2.84	1.53
<b>Equality:</b> We didn't make a choice; we allocated resources equally to all competing creative works	2.88	1.81
<b>Fluency:</b> The creative work we recognized quickest	2.51	1.57

An exploratory factor analysis (EFA) of principal components with a Varimax rotation was performed to examine the underlying structure of the decision-making heuristics used in selecting creative ideas for clients (see Table 5). Given the sample size, factor loadings less than .50 were suppressed from the analysis (Hair et al., 1998). A four-factor solution emerged from the analysis, which accounted for 65.3% of the variance. The factors were labeled: 'acknowledge', 'top,' 'know-how' and 'breakdown':

- *Acknowledge* (31%) consisted of default, recognition and fluency: all decision-making techniques based upon past experience and generally used in choices that were often routinely made.
- *Top* (16%) included instinct, satisficing, take-the-best and tallying. These were all decisions based around an assessment of what would work best either through innate gut feeling or based upon some degree of assessment at a rudimentary level.
- *Know-How* (10%) consisted of experience, hierarchy and defer. These types of decisions were made by senior executives within the agency or people within the team who were deemed to have the most experience.
- Finally, *Breakdown* (8%) consisted of those decisions based upon a higher degree of analysis via the equality heuristic and through algorithmic decision-making.

**TABLE 5: HEURISTIC TYPE FACTOR LOADINGS**

Item	Component				Communalities
	Acknowledge	Top	Know-How	Breakdown	
Recognition	.883				.813
Fluency	.879				.875
Default	.711				.602
Instinct		.735			.631
Satisficing		.720			.546
Take-the-best		.667			.629
Tallying		.521			.422
Experience			.832		.793
Hierarchy			.821		.741
Defer			.516		.679
Equality				.834	.721
Algorithmic				.657	.489
<b>Note:</b> KMO .749. Bartlett's Test of Sphericity .000. Total variance explained 65.271					

**TABLE 6: REGRESSION ESTIMATES**

<b>Model</b>	<b><i>b</i></b>	<b>SE-<i>b</i></b>	<b>Beta</b>	<b><i>t</i>-test</b>	<b>Sig.</b>
Constant	74.805	5.209		14.359	.000
<b>Acknowledge</b>	-3.997	2.545	-.192	-1.571	.123
<b>Top</b>	11.430	2.390	.555	4.784	.000
<b>Knowhow</b>	.127	2.609	.006	.049	.961
<b>Breakdown</b>	2.214	2.739	.105	.808	.423
<u>Controls:</u>					
Years in advertising	.482	.697	.175	.691	.493
Years in this agency	-.239	1.117	-.046	-.214	.831
Number of agencies	-1.816	1.920	-.179	-.945	.349
Creative/Planner	1.283	8.294	.020	.155	.878

Note: The dependent variable was Confidence.  $R^2 = .374$

The factor scores were saved as variables and used in a multiple regression analysis to identify the factors of heuristics associated with the greatest level of confidence in the choice of the idea (see Table 6). Confidence was measured on a 100-point scale. The number of years respondents worked in advertising as well as in the specific agency and their job role (creative/not= coded as a dummy variable) were included in the regression as control variables. The prediction model was statistically significant  $F(8, 48) = 3.588$ ,  $p = .002$  and accounted for approximately 37% of the variance of confidence. Decisions made on the basis of *Top* were found to be associated with higher levels of confidence (beta=.555,  $p < .000$ ), whilst decisions made on the basis of *Acknowledge*, *Know-How* or *Breakdown* did not lead to statistically significant higher or lower levels of confidence in the choice of idea. None of the control variables was statistically significant.

Table 7 shows the correlations between the heuristics types and some key demographics such as the age of the decision-makers, the number of years spent in the case study agency, the

number of advertising agencies decision-makers worked for and finally the number of years of experience in the field. *Acknowledge* was negatively correlated with the age of decision-makers suggesting that younger respondents were less likely to adopt this heuristic type. *Breakdown* was negatively correlated with the number of agencies decision-makers worked for suggesting that those with experience in a greater number of agencies were less likely to fall within this heuristic type. The findings also show the years worked for the case study agency were negatively correlated with both Components *Acknowledge* and *Breakdown*.

**TABLE 7: CORRELATIONS**

	<b>Acknowledge</b>	<b>Top</b>	<b>Know-How</b>	<b>Breakdown</b>
<b>Age</b>	-.253*	.173	-.169	-.248
<b>Years in this agency</b>	-.287*	.067	-.093	-.267*
<b>Number of agencies</b>	-.145	.087	-.111	-.265*
<b>Years in advertising</b>	-.185	.068	-.135	-.240

## **DISCUSSION**

What are the headlines in this exploratory study? There is a significant body of literature on creative decision making (e.g., Bergen, Dutta & Walker, 1992; Buchanan & Michell, 1991; Hackley 2003; Hotz, Ryans, & Shanklin 1982; Johar, Holbrook, & Stern 2001; Wackman, Salmon, & Salmon, 1986). Within this work, this paper contributes to our understanding of the use of analysis and heuristics as to what creative ideas to show the client. Little to nothing is known about how advertising practitioners make decisions in such situations where algorithms (i.e. decisions based upon logic and probability) have little or no role to play. The first point to make is that these advertising executives tend to be at the analytic (logical) end of the spectrum of heuristics. They consider their client's needs, choose solutions that have the most favorable points, set benchmarks and asses any available data. Sitting amidst these approaches are some pure heuristics—principally *instinct* and *majority*. That is, executives combine these analytic

heuristics with gut instincts and a majority vote. This finding complements previous research highlighting the importance of incubating ‘goal directed’ creativity within agencies (West, Kover and Caruana 2008) and acknowledging the internal tensions of advertising creatives between artistry and business (Alvesson 1994). Given this duality that makes up the identity of agencies, and in the absence of solid analytic heuristics to inform the judgment of creative work, it is not surprising that the choice of creative work is based on combinations of heuristics.

There is no ‘one size fits all’ solution and advertising executives are prepared to combine decision-making types to reach a decision. This was demonstrated by principal components analysis, which generated four categories of heuristics employed in the decision-making and revealed the symbiotic nature of logical versus affective heuristics amongst the global agency. The dominant decision-making style was labeled *acknowledge*, but was interestingly not associated with higher levels of confidence. A possible explanation for this relates to the fact that the aforementioned decision-making style gravitates towards past experience and routine decisions made in the agency, which may indeed result in perceptually ‘safe’ decisions unlikely to ‘thrill’ the client, but of course this may be exactly what the client might want; something safe.

By contrast, decisions grounded in taking *top* choices by instinct or rudimentary assessment are associated with greater confidence than any other heuristic type. This result requires further analysis and at this stage it is just conjecture, but perhaps because success was self-reported, managers attributed success to their own valuations and insights rather than alternative logical processes. As one practitioner noted on reading the results: “*The value of the findings to me, lies in their ability to help executives make swift and meaningful decisions in*

*deciding creative. So often we over-engineer or labor over which creative route is right, when actually instinct and swiftness of our decision is what make the difference.”*

Interestingly the *acknowledge* decision-making style was negatively correlated with the respondents’ age and the years employed in the agency. This suggests that younger executives and those who spent less time in the agency were less likely to adopt this group of heuristics. *Acknowledge* is probably associated with the dominant decision-making culture in the case study agency and draws on accumulated knowledge and routine practices. Younger respondents who spent less time in the agency arguably lack the experience to comfortably make decisions using this group of heuristics. In follow up probing, an experienced creative director replied, “Older creatives tend to be far more rigorous in their judgment, whereas younger creative have an unconscious willingness to try new things that might, at first glance, seem off strategy.” Similarly, less experience within the agency as well as experience in less agencies are negatively correlated with *breakdown* style that depends largely on analytic heuristics. Counter to the authors’ intuitive expectation, less experience does not lead executives to adopt analytic heuristics (to minimize the risk of their decisions), but rather to avoid those. This is line with past research showing that in fact less experienced employees are more comfortable taking risk compared to their more experienced counterparts (Menkhoff, Schmidt and Brozynski 2006). When asked about the differences in decision-making when it comes to a age and experience, one global agency creative director responded, “*I think newer creative versus more experienced creatives choose work based on whether it is provocative versus persuasive.*”

## **CONCLUSION, LIMITATIONS AND FUTURE RESEARCH**

This exploratory study contributes to the lack of research on the heuristics employed by advertising executives in their selection of creative work and shows that even within the same agency different combinations of heuristics are used. It also highlights the role of both analytic and pure heuristics in the decision-making process, which is in line with the dual nature of advertising creativity: where artistry meets business objectives. From a management perspective the study clearly demonstrates that the selection of creative solutions is not made in isolation. A key element in the choice is a good understanding of the needs of the client or sponsor. With large professional clients, and their large professional agencies, considerable research goes into the development of the Creative Brief. As such judging the Creative Brief against the solution offered by the creative work inevitably has, built into it, a certain level of analytical judgement. The Creative Director must be able to make fast qualitative judgements on, 'is the desired message (the proposition) communicated', 'does the work have creative impact' and 'is it the right brand personality'?

Despite the contribution of this study, the findings should be interpreted with caution. First, the research was undertaken within one agency and understandably the corporate culture of the agency plays a role in the decision-making styles and heuristics used by executives. Second, the sample size is such that further comparisons for sub-samples (e.g. based on specific job role) were not possible. Future research could build on this work by investigating the choice of creative work within a range of agencies (specialist vs. full-service/ small vs. large etc.) and also by examining the impact of decision-making styles and heuristics on various campaign success metrics from different sources (experts/consumers). This would establish a more definitive list of the heuristics that leads to the best selection of creative work. Another limitation of the study pertains to the memory bias resulting from asking respondents to recall a recent creative project



and respond to the survey accordingly. An ethnographic approach that allows future researchers to take part in agency meetings and to observe the selection of creative work will not only increase the validity of the findings but will also yield additional insights into the group and personality dynamics of decision-makers and how these may affect the heuristics employed. A final point to note is that given the study focused on the final stage of the creative choices, responses were biased towards Account Planners rather than creative people (copywriters / art directors / creative directors). This may have influenced the results compared to what might have been found solely at the earlier stages of creative development.

Future researchers may wish to examine a wider cross sample of practitioners than the single global agency presented here in order to establish greater reliability. Furthermore, the wider topic of decision-making within advertisers, agencies and the media might be investigated. In particular, the effects of digitalization and the advertising business and decision-making would be a rich topic to explore. To end on a broader point, as argued by Wierenga (2011): “Managerial decision making in marketing is the heart of the field. Strangely enough, academic work on this topic is scarce. Existing work on marketing decision making is either descriptive or takes an optimization approach, with the role of the marketing decision maker practically disappearing” (page 89). There are undoubtedly ample opportunities for researchers in the field to redress this imbalance.

## REFERENCES

- ALVESSON, M. "Talking in Organizations: Managing Identity and Impressions in an Advertising Agency." *Organization Studies* 15, 4 (1994): 535-563.
- ARMSTRONG J.S. and T.S OVERTON. "Estimating Non-Response Bias in Mail Surveys." *Journal of Marketing Research* 14 August, (1977): 396-402.
- ARMSTRONG, J. S. "Prediction of Consumer Behavior by Experts and Novices." *Journal of Consumer Research*, 18 September (1991): 251-256.
- ÅSTEBRO, T. and S. ELHEDHLI. "The Effectiveness of Simple Decision Heuristics: Forecasting Commercial Success for Early-Stage Ventures." *Management Science* 52, 3 (2006): 395-409.
- BAAS M., C. K. W. DE DREU, and B. A. NIJSTAD. "A Meta-Analysis of 25 Years of Mood-Creativity Research: Hedonic Tone, Activation, or Regulatory Focus?" *Psychological Bulletin* 134, 6 (2008): 779 – 806.
- BRÖDER, A. "Decision making with the "adaptive toolbox": Influence of environmental structure, intelligence, and working memory load." *Journal of Experimental Psychology: Learning, Memory, and Cognition* 29, 4 2003611.
- BROOKE, G. T. F. "Uncertainty, Profit and Entrepreneurial Action: Frank Knight's Contribution Reconsidered." *Journal of the History of Economic Thought* 32, 2 (2010): 221-235.
- BOYD, R., and P.J. RICHERSON. *The origin and evolution of cultures*. Oxford University Press, 2004.
- BERGEN, M., DUTTA, S., & O. C. WALKER, Jr. "Agency relationships in marketing: A review of the implications and applications of agency and related theories." *Journal of Marketing*, 56, 3 (1992): 1-24.
- BUCHANAN, B., & P. C. MICHELL. "Using structural factors to assess the risk of failure in agency-client relations." *Journal of Advertising Research*, 31, 4 (1991): 68-75.
- COSMIDES, L. and J. TOOBY. "Cognitive Adaptations for Social Exchange. In *The Adapted Mind: Evolutionary Psychology and the Generation of Culture*, J.H. Barkow, L. Cosmides, and J. Tooby Eds. New York: Oxford University Press, (1992: 163-228).
- CRIPPS, J. D. and R. J. MEYER. "Heuristics and biases in timing the replacement of durable products." *Journal of Consumer Research* 21, 2 (1994): 304-318.
- CRUTZEN, R., and A. GORITZ. "Social Desirability and Self-Reported Health Risk Behaviors in Web-Based Research: Three Longitudinal Studies." *BMC Public Health* 10,1 (2010): 720-729.

- DAHLÉN, M., S. ROSENGREN, and F. TÖRN. "Advertising Creativity Matters." *Journal of Advertising Research* 48, 3 (2008): 392-403.
- DANE, E., and M.G. PRATT. "Exploring Intuition and its Role in Managerial Decision Making." *Academy of Management Review* 32, 1 (2007): 33-54.
- DAWES, R. M. "The Robust Beauty of Improper Linear Models in Decision Making." *American Psychologist* 34, 7 (1979): 571-582.
- DAY, D. V, and R.G. LORD. "Expertise and Problem Categorization: The Role of Expert Processing in Organizational Sense-Making." *Journal of Management Studies* 29, 1 (1992): 35-47.
- EVANS, M. "A Monte Carlo Study of the Effects of Correlated Method Variance in Moderated Multiple Regression Analysis." *Organizational Behavior and Human Decision Processes* 36, (1985): 305-323.
- FREDRICKSON, J. W. "Effects of Decision Motive and Organizational Performance Level on Strategic Decision Processes." *Academy of Management Journal* 28, 4 (1985): 821-843.
- GIGERENZER, G. "Why Heuristics Work," *Perspectives on Psychological Science* 3, 1 (2008): 20-29.
- GIGERENZER, G., and W. GAISSMAIER. "Heuristic Decision Making". *Annual Review of Psychology*, 62 January (2011): 451-482.
- GIGERENZER, G., and D.G. GOLDSTEIN. "Reasoning the Fast and Frugal Way: Models of Bounded Rationality." *Psychological Review* 103, 4 (1996): 650-669.
- GITTELMAN, V., V. LANGE, W. A. COOK, S. M. FREDE ET. AL. "Accounting for Social-Desirability Bias in Survey Sampling: A Model for Predicting and Calibrating The Direction and Magnitude of Social-Desirability Bias." *Journal of Advertising Research* 55, 3 (2015): 242-254.
- GOLDSTEIN, D. G., and G. GIGERENZER. "Models of Ecological Rationality: the recognition heuristic." *Psychological Review* 109, 4 (2002): 645.
- HACKLEY, C. "Divergent representational practices in advertising and consumer research: Some thoughts on integration." *Qualitative Market Research: An International Journal* 6, 3 (2003): 175-183.
- HAIR, J.F., R.E. ANDERSON, R.L. TATHAM and W.C. BLACK. *Multivariate Data Analysis*, 5<sup>th</sup> Edition. Upper Saddle River, NJ: Prentice Hall, 1998.
- HAYASHI, A. M. "When to Trust Your Gut." *Harvard Business Review* 79, 2 (2001): 58-65.

- HERTWIG, R., and P. M. TODD. "More is not Always Better: The Benefits of Cognitive Limits." In *The Psychology of Reasoning and Decision Making: A Handbook*, D. Hardman and L. Macchi, eds. Chichester: Wiley, 2003.
- HIRSCHMAN, E. C. "Role-based Models of Advertising Creation and Production." *Journal of Advertising* 18, 4 (1989): 42-54.
- HOCH, S. J. "Who do we Know: Predicting the Interests and Opinions of the American Consumer." *Journal of Consumer Research*, 15 (1988): 315–324.
- HOLBROOK, A., and J. KROSNIK. "Social Desirability Bias in Voter Turnout Reports: Tests Using the Item Count Technique." *Public Opinion Quarterly* 74 (2010): 37-67.
- HOTZ, M. R., RYANS, J. K., & W. L. SHANKLIN. "Agency/client relationships as seen by influentials on both sides." *Journal of Advertising* 11, 1 (1982): 37-44.
- HUTCHINSON, J. W., J. W. ALBA and E. M. EISENSTEIN. "Heuristics and biases in data-based decision making: Effects of experience, training, and graphical data displays." *Journal of Marketing Research* 47, 4 (2010): 627–642.
- ISENBERG, D. J. "Thinking and Managing: A Verbal Protocol Analysis of Managerial Problem Solving." *Academy of Management Journal* 29, 4 (1986): 775–788.
- JOHAR, G. V., HOLBROOK, M. B., & B. B. STERN. The role of myth in creative advertising design: Theory, process and outcome. *Journal of Advertising*, 30, 3 (2001): 1-25.
- JOHNSON, J. G., and M. RAAB. "Take the First: Option-generation and Resulting Choices." *Organizational Behavior and Human Decision Processes* 91, 2 (2003): 215–229.
- KAHNEMAN, D. "A Perspective on Judgment and Choice: Mapping Bounded Rationality." *American Psychologist* 58, 9 (2003): 697-720.
- KNIGHT, F. H. "The Ethics of Competition." *Quarterly Journal of Economics* 37, 4 (1923): 579-624.
- KOSLOW, S., S. L. SASSER, and E. A. RIORDAN. "What is Creative to Whom and Why? Perceptions in Advertising Agencies." *Journal of Advertising Research* 43, 1 (2003): 96-111.
- KOSLOW, S., S. L. SASSER, and E. A. RIORDAN. "Do Marketers Get the Advertising They Need or The Advertising They Deserve? Agency Views of How Clients Influence Creativity." *Journal of Advertising* 35, 3 (2006): 81-101.
- LEHNERT, K., B. D. TILL, and J. M. OSPINA. "Advertising Creativity: The Role of Divergence Versus Meaningfulness." *Journal of Advertising* 43, 2 (2014): 274-285.

- MALLIA, K. L., K. WINDELS, and S. J. BROYLES. "An Examination of Successful Leadership Traits for The Advertising-Agency Creative Director." *Journal of Advertising Research* 53, 3 (2013): 339-353.
- MAYLOR, H. and BLACKMON, K. *Researching Business and Management: A Roadmap for Success*. Basingstoke: Palgrave Macmillan, 2005.
- MENKHOFF, L., U. SCHMIDT and T. BROZYNSKI. "The Impact of Experience on Risk Taking, Overconfidence and Herding of Fund Managers: Complementary Survey Evidence", *European Economic Review* 50, (2006): 1753-1766.
- MICHELL, P. C. "Accord and Discord in Agency-Client Perceptions of Creativity." *Journal of Advertising Research* 24, 5 (1984): 9-24.
- NEWELL, B. R., and D. R. SHANKS. "Take the best or look at the rest? Factors influencing "one-reason" decision making." *Journal of Experimental Psychology: Learning, Memory, and Cognition* 29, 1 2003: 82-96.
- NYILASY G., and L. N. REID. "Agency Practitioner Theories of How Advertising Works." *Journal of Advertising* 38, 3 (2009): 81-96.
- PHILLIPS, D. L., and K. J. CLANCY. "Some Effects of 'Social Desirability' in Survey Studies." *American Journal of Sociology* 77,5 (1972): 921-940
- RUNCO, M. A. and R. E. CHARLES. "Judgments of Originality and Appropriateness as Predictors of Creativity." *Personality and Individual Differences* 15, 5 (1993): 537-546.
- SAINI, R., and A. MONGA. "How I decide depends on what I spend: use of heuristics is greater for time than for money." *Journal of Consumer Research* 34, 6 (2008): 914–922.
- SCHOOLER, L. J., and HERTWIG, R. "How Forgetting Aids Heuristic Inference." *Psychological Review* 112, 3 (2005): 610-628.
- SIMON, H. A. "A Behavioral Model of Rational Choice." *The Quarterly Journal of Economics*, 69, 1 (1955): 99–118.
- STEWART D. W., Y. CHENG and H. WAN. "Creative and Effective Advertising: Balancing Spontaneity and Discipline." *Journal of Advertising*. 37, 4 (2008): 135-139.
- TAYLOR, J., R. KENNEDY and B. SHARP. "Is Once Really Enough? Making Generalizations about Advertising's Convex Sales Response Function." *Journal of Advertising Research* 2 (2009): 198-200.
- TODD, P.M. and G.F. MILLER. 'From Pride and Prejudice to Persuasion: Satisficing in Mate Search', In Gigerenzer G, Todd PM, ABC Research Group. *Simple Heuristics that Make us Smart*, New York: Oxford University Press, (1999: 287–308).

WACKMAN, D. B., SALMON, C. T., & C. C. SALMON. "Developing an advertising agency-client relationship." *Journal of Advertising Research* 26, 6 (1986): 21-28.

WEST, D., A. CARUANA and K. LEELAPANYALERT. "What Makes Win, Place, or Show? Judging Creativity in Advertising at Award Shows." *Journal of Advertising Research* 53, 3 (2013): 324-338.

WEST, D., A.J. KOVER, and A. CARUANA. "Practitioner and Customer Views of Advertising Creativity: Same Concept, Different Meaning." *Journal of Advertising* 37, 4 (2008): 35-45.

WEST, D., J. FORD and P. FARRIS. "How Corporate Culture Drives Advertising and Promotion Budgets: Best Practices Combine Heuristics and Algorithmic Tools." *Journal of Advertising Research* 54, 2 (2014): 149-162.

WHITE, A. and B. L. SMITH. "Assessing Advertising Creativity Using the Creative Product Semantic Scale." *Journal of Advertising Research* 41, 6 (2001): 27-34.

WIERENGA, B. "Managerial decision making in marketing: The next research frontier. International." *Journal of Research in Marketing* 28 (2011): 89-101.

WÜBBEN, M., and F.V. WANGENHEIM. "Instant Customer Base Analysis: Managerial Heuristics Often "Get it Right." *Journal of Marketing* 72, 3 (2008): 82-93.

YIN, R. K. *Case Study Research: Design and Methods*. 3<sup>rd</sup> ed. Thousand Oaks, CA: Sage, 2005.